

perfe and expand it self into a vast space, if it have room enough, and infect, as it were, every part of that space. But, as on the other side, if there be but some few grains of the liquor, it may extract all the colour of the tinging substance, and may dissolve all the Salt, and thereby become much more impregnated with those substances, so may all the air that sufficed in a rarify'd state to fill some hundred thousand spaces of Æther, be compris'd in only one, but in a position proportionable dense. And though we have not yet found out such strainers for Tinctures and Salts as we have for the Air, being yet unable to separate them from their dissolving liquors by any kind of filtre, without precipitation, as we are able to separate the Air from the Æther by Glass, and several other bodies. And though we are yet unable and ignorant of the ways of precipitating Air out of the Æther as we can Tinctures, and Salts out of several dissolvents, yet neither of these seeming impossible from the nature of the things, nor so improbable but that some happy future industry may find out ways to effect them; nay, further, since we find that Nature does really perform (though by what means we are not certain) both these actions, namely, by precipitating the Air in Rain and Dews, and by supplying the Streams and Rivers of the World with fresh water, strain'd through secret subterraneous Caverns: And since, that in very many other proprieties they do so exactly seem of the same nature; till further observations or tryals do inform us of the contrary, we may safely enough conclude them of the same kind. For it seldom happens that any two natures have so many properties coincident or the same, as I have observ'd Solutions and Air to have, and to be different in the rest. And therefore I think it neither impossible, irrational, nay nor difficult to be able to predict what is likely to happen in other particulars also, besides those which Observation or Experiment have declared thus or thus; especially, if the circumstances that do often very much conduce to the variation of the effects be duly weigh'd and consider'd. And indeed, were there not a probability of this, our inquiries would be endless, our tryals vain, and our greatest inventions would be nothing but the meer products of chance, and not of Reason; and, like Mariners in an Ocean, destitute both of a Compass and the sight of the Celestial guides, we might indeed, by chance, Steer directly towards our desired Port, but 'tis a thousand to one but we miss our aim. But to proceed, we may hence also give a plain reason, how the Air comes to be darkned by clouds, &c. which are nothing but a kind of precipitation, and how those precipitations fall down in Showrs. Hence also could I very easily, and I think truly, deduce the cause of the curious sixangular figures of Snow, and the appearances of Haloes, &c. and the sudden thickning of the Sky with Clouds, and the vanishing and disappearing of those Clouds again; for all these things may be very easily imitated in a glass of liquor, with some slight Chymical preparations as I have often try'd, and may somewhere else more largely relate, but have not now time to set them down. But to proceed, there are other bodies that consist of particles more Gross, and of a more apt figure for cohesion, and this requires a somewhat greater agitation; such, I suppose &c. fermented vinous Spirits

Spirits, several Chymical Oils, which are much of kin to those Spirits, &c. Others yet require a greater, as water, and so others much greater, for almost infinite degrees: For, I suppose there are very few bodies in the world that may not be made aliquatenus fluid, by some or other degree of agitation or heat.

Having therefore in short set down my Notion of a Fluid body, I come in the next place to consider what Congruity is; and this, as I said before, being a Relative property of a fluid, whereby it may be said to be like or unlike to this or that other body, whereby it does or does not mix with this or that body. We will again have recourse to our former Experiment, though but a rude one; and here if we mix in the dish several kinds of sands, some of bigger, others of less and finer bulks, we shall find that by the agitation the fine sand will eject and throw out of it self all those bigger bulks of small stones and the like, and those will be gathered together all into one place; and if there be other bodies in it of other natures, those also will be separated into a place by themselves, and united or tumbled up together. And though this do not come up to the highest property of Congruity, which is a Cohesion of the parts of the fluid together, or a kind of attraction and tenacity, yet this does as 'twere shadow it out, and somewhat resemble it; for just after the same manner, I suppose the pulse of heat to agitate the small parcels of matter, and those that are of a like bigness, and figure, and matter, will hold, or dance together, and those which are of a differing kind will be thrust or shov'd out from between them; for particles that are all similar, will, like so many equal musical strings equally stretcht, vibrate together in a kind of Harmony or unison; whereas others that are dissimilar, upon what account soever, unless the disproportion be otherwise counter-ballanc'd, will, like so many strings out of tune to those unisons, though they have the same agitating pulse, yet make quite differing kinds of vibrations and re percussions, so that though they may be both mov'd, yet are their vibrations so different, and so untun'd, as 'twere to each other, that they cross and jar against each other, and consequently, cannot agree together, but fly back from each other to their similar particles. Now, to give you an instance how the disproportion of some bodies in one respect, may be counter-ballanc'd by a contrary disproportion of the same body in another respect, whence we find that the subtil vinous spirit is congruous, or does readily mix with water, which in many properties is of a very differing nature, we may consider that a unison may be made either by two strings of the same bigness, length, and tension, or by two strings of the same bigness, but of differing length, and a contrary differing tension; or 3ly. by two strings of unequal length and bigness, and of a differing tension, or of equal length, and differing bigness and tension, and several other such varieties. To which three properties in strings, will correspond three proprieties also in sand, or the particles of bodies, their Matter or Substance, their Figure or Shape, and their Body or Bulk. And from the varieties of these three, may arise infinite varieties in fluid bodies, though all agitated by the same pulse or vibrative motion. And there may be as many ways of making Harmonies and